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CANADA

REPORT

of the

DEPARTMENT OF DEFENCE PRODUCTION

January 1 to December 31, 1963

OTTAWA

105-04275/

THIRTEENTH REPORT

of the

DEPARTMENT

of

DEFENCE

PRODUCTION

1963

Hon. C. M. DRURY, P.C., C.B.E., D.S.O., Q.C., M.P., *Minister*

G. W. HUNTER, *Deputy Minister*

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1964

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To His Excellency General The Right Honourable Georges P. Vanier, DSO, MC, CD, Governor-General and Commander-in-Chief of Canada.

MARCH 31, 1964

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit to Your Excellency the Report of the Department of Defence Production for the calendar year 1963.

A summary of the operations and services rendered by this Department, under their respective headings, is laid before Your Excellency.

Respectfully submitted,

Minister of Defence Production.

MARCH 31, 1964

The Honourable C. M. Drury, P.C., C.B.E., D.S.O., Q.C., M.P.,
Minister of Defence Production,
Ottawa, Ontario.

DEAR SIR:

I have the honour to submit the Report of the Department of Defence Production, which covers the operations and services rendered during the calendar year 1963.

Yours faithfully,

Deputy Minister.

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Responsibilities and Organization

UNDER the provisions of the Defence Production Act[1], by which the Department of Defence Production was established on April 1, 1951, the Department has:

(1) exclusive authority to procure the goods and services required by the Department of National Defence, and

(2) the responsibility to ensure that the necessary production capacity and materials are available to support the defence production program.

The Department also has responsibility for defence development and production sharing with the United States, for defence production export activities with other Allied countries, and for armament co-operation within NATO. It co-operates with other Government departments to promote and strengthen the research capability of Canadian defence industry.

Canadian Commercial Corporation utilizes the services of the Department to assist it in obtaining foreign defence business for Canadian industry. The Department does the procurement for the Corporation, which is a Crown company primarily responsible for the purchase in Canada of defence goods required by other governments and of supplies needed to meet Canadian commitments under the Colombo Plan and other international agreements.

The organization of the Department, which had 1,611 employees on strength at the end of 1963, is essentially as follows:

Five production branches responsible for obtaining defence supplies requiring specialized production facilities and for the direct implementation of the defence production sharing program and other overseas exports of military equipment. These were the Aircraft, Armament, Electronics, Machine Tool and Shipbuilding Branches.

A General Purchasing Branch, which included district purchasing offices in fourteen cities across Canada, to procure the supplies and services not normally requiring special production facilities.

An office in Washington, U.S.A., maintained liaison with various United States Government agencies, and was actively involved with the defence production sharing program, handled procurement from the United States Armed Services, and directed a sub-office at Wright-Patterson Air Force Base, Ohio. Eight production sharing liaison offices are located in the United States.

An office in London, England, conducted procurement activity in Britain. A small sub-office located at Prestwick Airport, Scotland, expedited certain repair and overhaul activities. Sub-offices in Paris, France, and Koblenz, Federal Republic of Germany, handled the normal procurement in those countries.

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[1] Revised Statutes of Canada 1952, Chapter 62, as amended.

The International Programs Branch co-ordinated the Canada-United States program as well as activities associated with NATO research, development and production programs and other overseas defence exports.

Seven advisory and service branches provided supporting activities to the Department's main procurement responsibility. These were the Administration, Comptroller's, Economics and Statistics, Financial Adviser's, Industrial Security, Legal and Secretary's Branches.

An Emergency Supply Planning Branch continued to work on plans and preparations for bringing a War Supplies Agency into immediate existence should a nuclear war occur.

The Management Control Group was established late in the year to develop long-term plans for administration of the Department and exercise program control on behalf of the Deputy Minister.

Two defence production attachés were maintained in Europe. One was located in Bonn, Federal Republic of Germany, the other at the Canadian Embassy in Paris. They assisted Canadian industry to participate in European defence requirements.

The Department was represented by two members on the Canadian Delegation to the North Atlantic Council in Paris, France. These members were responsible for liaison with other national delegations and with the NATO international staff, and for making the Canadian viewpoint known on defence production matters of common concern to several members of the Alliance. They represented Canada on the NATO Armaments Committee which, in turn, controls a wide variety of expert working groups.

Military construction is the prime responsibility of Defence Construction (1951) Limited, a Crown company reporting to Parliament through the Minister of Defence Production.

In addition to Canadian Commercial Corporation and Defence Construction (1951) Limited, three other Crown companies report to Parliament through the Minister of Defence Production. These are Canadian Arsenals Limited, Crown Assets Disposal Corporation and Polymer Corporation Limited. An account of the activities of the five associated Crown agencies is contained in their respective Annual Reports.

Implementation of Recommendations by the Royal Commission on Government Organization

The Commission reported that "The Canadian Commercial Corporation is essentially a convenience to other governments (foreign). Its operations are integral to those of the Purchasing Department with which it is associated. While its continued existence as a legal entity may be useful, no purpose is served by a separate management and staff." This recommendation was implemented in November 1963 and the management and staff have been integrated with the Department of Defence Production. The legal entity of the Corporation has been maintained.

In August 1963, in accordance with another recommendation of the Commission, the control and supervision of the following units of Public Printing and

Stationery were transferred from that department to Department of Defence Production: the Procurement Purchasing and Stores Branch, the Production Branch and the supporting services in the Secretary's Branch, the Administration Services Branch and the Financial Services Branch. A pilot program of integration, for the Branches other than the Printing Bureau, was outlined and is being put into effect.

The Department is carrying out studies in respect to other recommendations of the Commission dealing with the integration in the Department of purchasing, supply and warehousing activities of departments other than the Department of National Defence.

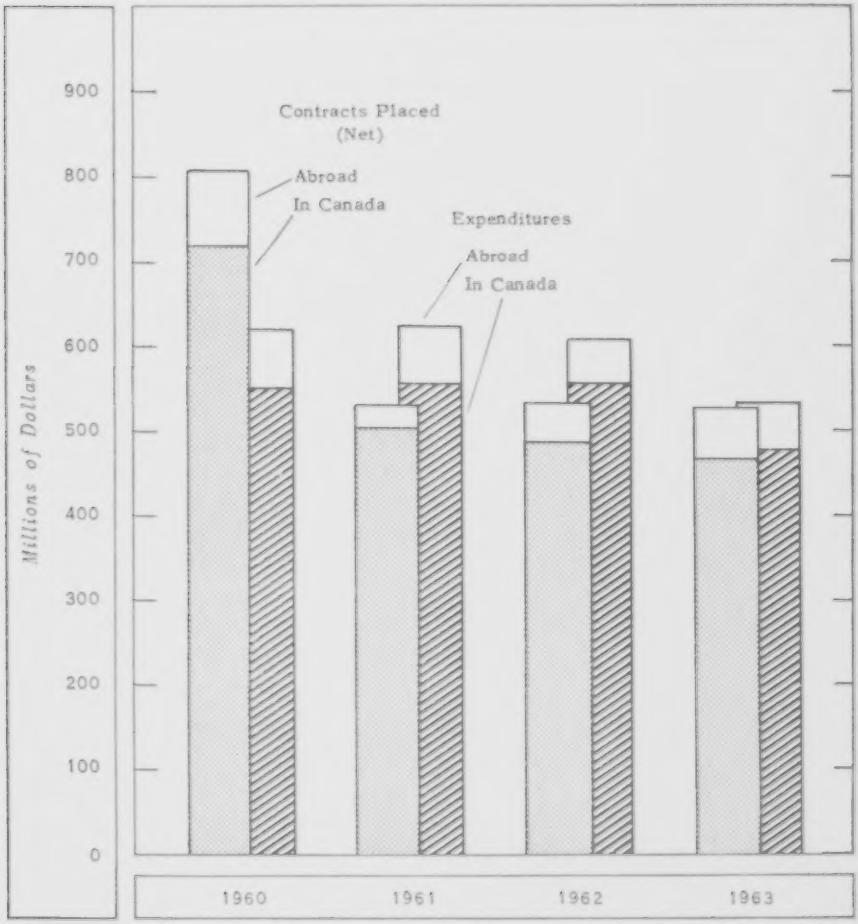
Production and Procurement

Defence Contracting–1963

CONTRACTS having a total net value of $682.0 million were issued in 1963, a decrease of 14.5 per cent from the total of $797.6 million in the previous year. The net value of contracts is the total of new contracts issued as well as amendments of purchases that increased or decreased the value of existing contracts.

The largest group of contracts, having a net value of $522.3 million, was issued for the Department of National Defence. This is 2.7 per cent less than the value of such Canadian Government defence contracts issued in 1962.

Contracts Placed on Behalf of the Department of National Defence and Related Expenditures



Foreign government defence (and a small amount of non-defence) prime contracts placed in Canada through Canadian Government agencies totalled $135.2 million last year, of which $96.9 million was for the United States, $16.4 million for Australia, $12.5 million for India, $3.3 million for Italy, and $1.4 million for Britain. The corresponding value of government prime contracts of other nations placed in Canada in the previous year was $225.6 million.

Contracts issued against this Department's Votes to assist Canadian defence industry had a net value of $11.3 million in 1963, compared with $9.4 million in the preceding year.

In addition to the above groups of contracts, a total of almost $11.6 million was issued for Canadian external aid and $1.5 million for a miscellany of other purposes.

These figures, and those contained in Appendix F of this Report, relate only to prime contracts awarded by the Department of Defence Production and its associated Crown companies, Canadian Commercial Corporation and Defence Construction (1951) Limited. They do not include prime contracts placed directly with Canadian contractors by foreign governments and subcontracts placed in Canada by United States and other foreign defence contractors. Further reference to these direct prime contracts and subcontracts, which are reported to the Department by Canadian companies, is contained in the sections of this Report covering the defence production sharing program and Overseas defence exports.

Aircraft

The requirements of the Department of National Defence for aircraft, aircraft equipment and related services resulted in the placement of contracts by the Branch in 1963 having a net value of $180.1 million. Contracts placed on behalf of foreign governments amounted to $56.4 million. Departmental funds in the amount of $23.1 million were committed to assist Canadian industry with the development, pre-production engineering and qualification of new products.

Production of the CF 104 super Starfighter aircraft for the Royal Canadian Air Force was completed during the year and deliveries of F104G aircraft for the Canada/U.S. Mutual Aid program commenced. A total of 140 F104G aircraft, together with ground support equipment and spares are being manufactured in Canada for the latter program. The production in Canada of equipment for installation in these aircraft, including inertial navigation systems, position and homing indicators, automatic flight control systems and pyrotechnics was continued throughout the year and showed a satisfactory domestic content.

Twenty-two CF 104D trainer aircraft were delivered to the Royal Canadian Air Force and a contract for an additional 16 aircraft of this type was placed.

In December the first of 190 CT-114 TUTOR primary jet trainer aircraft was delivered to the Royal Canadian Air Force. Development of the prototype CT-114R advanced systems trainer was completed during the year and together with the prototype CT-114 TUTOR was demonstrated in several NATO countries.

Fifty-four Caribou I aircraft were delivered to the U.S. Army during the period. Two additional orders for 34 Caribou I aircraft were received from the Governments of India and Australia.

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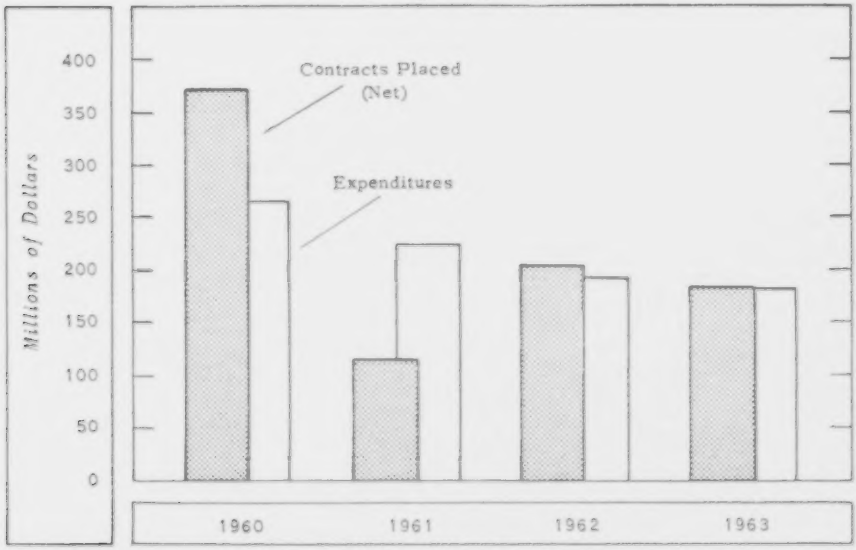
Four CHSS-2 (Sikorsky) helicopters were delivered to the Royal Canadian Navy for use in the anti-submarine warfare role. A further quantity of five of these helicopters which will be assembled in Canada are scheduled for delivery early in 1964. An order was placed for 12 Vertol CH-113A heavy helicopters for operation by the Canadian Army as troop and equipment transports.

Production of the J79 turbo-jet engine for the CF-104 and F-104G aircraft was maintained throughout the year with a total of 134 engines produced. Qualification tests of the Canadian produced J85 engine were completed, and deliveries of this engine for the CT-114 TUTOR aircraft commenced on schedule. Further orders were placed for a total of 61 T58 engines for installation in the CHSS (Sikorsky) helicopter for the Royal Canadian Navy and the Vertol CH-113A helicopters for the Canadian Army.

Development and production sharing activities were accelerated during the year. The Branch arranged for the presentation of "Procurement Symposia" in Canada by several major United States defence contractors and, together with representatives of Canadian industry, Branch personnel visited a number of United States firms to brief them on the capabilities of the Canadian aircraft industry. The Branch participated in several NATO Working Groups and, in conjunction with other Branches, took part in bilateral discussions on research and development projects with the British, French and German Governments.

Contracts Placed by the Aircraft Branch on behalf of the Department of National Defence and Related Expenditures



Nine shared development projects involving Crown assistance were under contract and several others are being considered. Interest in the PT 6 turbo-shaft engine, which has completed its 150 hour qualification test, has continued and

many preproduction engines have been made available on loan to United States fixed and rotary wing aircraft manufacturers. Following a feasibility study, cost sharing arrangements were completed with the British Government for the development and evaluation trials of the CL 89 Surveillance Drone. Production of a prototype quantity of the Caribou II turbine powered aircraft for evaluation by the United States Army proceeded under a cost sharing arrangement between the United States Army, the Canadian contractor and this Department. The United States Navy continued supporting the development of a Canadian 600 h.p. stationary gas turbine engine for small marine craft and dockyard application. A development contract for a Tilt-Wing Deflected Slipstream Vertical Takeoff and Landing aircraft aimed at satisfying anticipated United States Tripartite and NATO requirements was placed in mid-year. Arrangements were completed for the development, design and construction in Canada of a 180 ton prototype hydrofoil ship (FHE) for the Royal Canadian Navy.

The requirements of the Department of National Defence for aircraft repair and overhaul resulted in the placement of 246 contracts valued at $68.4 million. The replacement of older type aircraft by smaller quantities of modern high performance aircraft for the Royal Canadian Air Force and the Royal Canadian Navy resulted in decrease of activities on repair and overhaul.

Armament

Contracting for Canadian defence requirements for weapons and ammunition amounted to $11.9 million, a decrease from the amount of $23.5 million the previous year.

Among the major items under production in Canada for the Canadian Armed Services are 105 mm tank ammunition, smoke grenades, practice bombs, 7.62 mm rifle ammunition, underwater sound signals, and torpedoes. Deliveries continued during the year on SSH and ENTAC missile systems from France. Present requirements on a range of pyrotechnic stores, 7.62 mm blank and tracer ammunition, and several types of 3″70 calibre ammunition for naval guns were met.

Contracts amounting $15.0 million were received by Canadian firms for United States armament requirements such as small arms ammunition, mines, artillery fuzes, missile casings, propellants and explosives.

Canadian funding continues to support armament development programmes with export potential.

In the space field the Branch supported the establishment by industry of a new rocket propellant facility in Winnipeg and is continuing its support of the Black Brant atmospheric research rockets.

In NATO Working Groups the Branch participation included attendance at meetings on Internal Ballistics, Propellants and Explosives, Landmine Warfare, Protection against NBC Warfare, Optical Instruments, the Mark 44 Anti-Submarine Torpedo, and the M72 light weight anti-tank weapon. In addition, orders have also been placed in Canada for optical sighting instruments.

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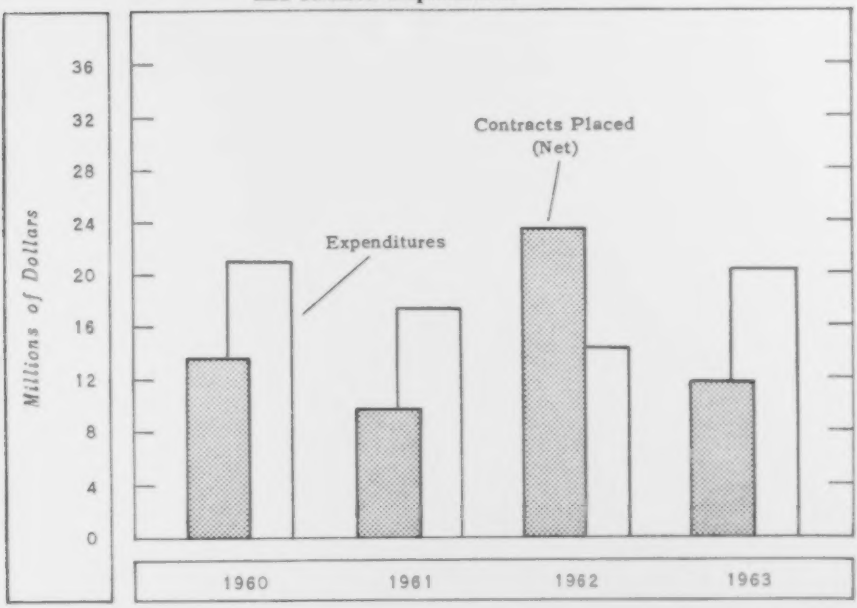
Interest in a number of Canadian defence products was strengthened as a result of Branch participation in bilateral trade discussions with Britain, the Federal Republic of Germany, and France.

Contracts Placed by the Armament Branch on behalf of the Department of National Defence and Related Expenditures



Electronics

During 1963 contracts valued at $92.3 million were placed by the Electronics Branch for Canadian defence requirements, and $39.1 million for the defence requirements of other governments. In addition, subcontracts from external prime contractors were placed in Canada for $29.4 million.

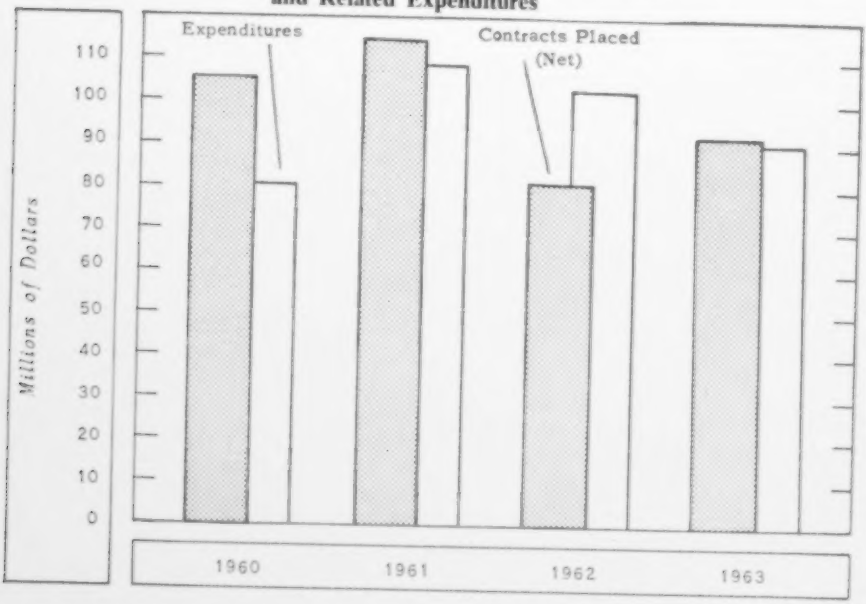
Actual expenditures in Canadian industry on defence electronics contracts amounted to $90.6 million for Canada and $47.3 million for other governments. A significant proportion of Department of National Defence expenditures was for the leasing of telecommunication circuits.

Expenditures against the Development Assistance Vote in support of the Canadian electronics industry have risen from $1.9 million last year to $4.4 million this year. In particular, airborne navigation equipment, computer ancillaries, and sonobuoys have been exported in quantity, while pilot quantities of beacons, microwave tubes and radio receivers have been sold abroad. Continued financial support to Canadian industry is being given for development work in airborne communications, navigation, anti-submarine warfare equipment for application to all types of aircraft, including helicopters, and tactical radio communications, the latter having sales potential in the United States, Canada and Britain.

The Vote to assist the establishment of Canadian sources continues to provide essential support to military electronic component manufacturers in Canada. This program is fundamental to achieving maximum Canadian content in defence procurement of electronic apparatus and systems and additionally helps to qualify Canadian contractors for export bidding. Expenditures in this area totalled $472,000 in 1963 as compared to $279,000 in 1962.

Canadian radar manufacturers are engaged mainly in the production of countermeasure equipment, counter mortar radars for the Canadian Army, and radomes. Studies are continuing on designs of future generations of radars as a result of co-operative development agreements with a number of our NATO allies.

Contracts Placed by the Electronics Branch on behalf of the Department of National Defence and Related Expenditures



In data processing, development work is proceeding primarily in the area of ancillary supplies, such as memory drums and tape readers. Export sales of these equipments have been encouraging.

Sonar production has continued for both Canadian and external requirements, and further development work is underway for its use with existing ships and future hydrofoils.

Additions to the Army's communication project were completed and production carried on for an emergency network requirement. Procurement planning for the inter-service communication improvement program is awaiting the results of a systems analysis. Communications development work and production for export sales continued.

Contracts have been placed for satellites to be used for work in connection with the International Satellites for Ionospheric Sounding Program. These will contain very advanced electronics systems designed in Canada.

Production of electronic systems for the RCAF CF104 program was largely completed and similar systems for the Mutual Aid Program F104G continued. Airborne communication, navigation and identification, and data recording equipment was produced at a steady rate, particularly for requirements outside Canada.

Ground TACAN commenced operations with the completion of the RCAF Control Tower installations, and installation of radar and communication equipments for use in the CADIN system progressed satisfactorily.

Hand-over of USAF-financed and manned Pinetree Sites to the RCAF was completed during the year. A greater proportion of maintenance requirements was assumed by the RCAF and there has been a corresponding decrease in commercial contractor support.

Branch officers participated in numerous NATO co-ordinating meetings and were actively engaged in fostering the sale of Canadian produced military equipment to various European countries.

Shipbuilding

During 1963 work progressed on the construction of warships, a tanker supply vessel, scientific vessels and auxiliary vessels.

In the Repeat Restigouche Programme of six destroyer escorts, following the delivery in October 1962 of the lead ship, HMCS Mackenzie, three additional ships were completed and joined the Fleet during 1963. They were HMCS Saskatchewan, HMCS Yukon and HMCS Qu'Appelle. Work is progressing on the remaining two ships of the class and it is expected that they will be completed in 1964.

The Tanker/Supply Vessel, HMCS Provider was completed and accepted in November 1963. A Hydrographic Survey Vessel for the Department of Mines and Technical Surveys, C.G.S. Hudson, was completed and undergoing final acceptance at year-end. Work progressed on schedule on construction of the Pacific Naval Laboratory Vessel. Other new construction included a Standard Diving Tender, Deperming Barges, Landing Floats, Diving Floats and a Tank Cleaning Barge.

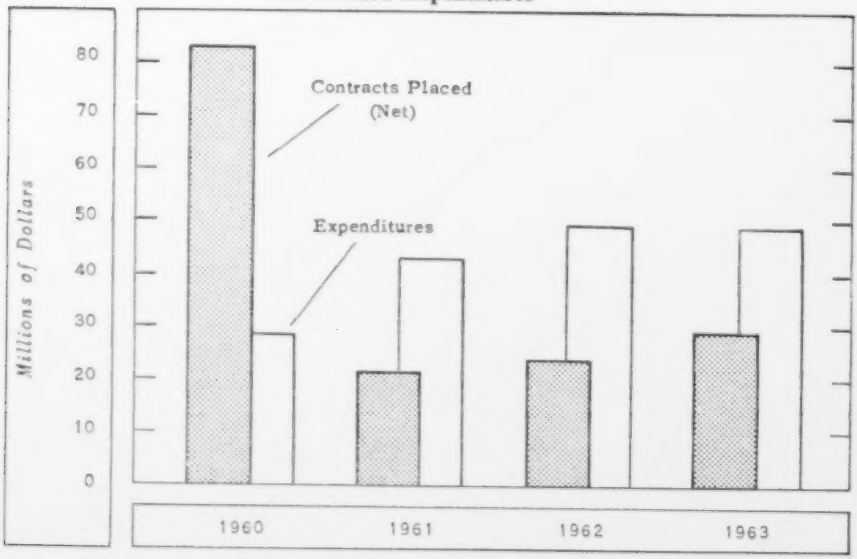
Procurement of three Oberon Submarines from the British Admiralty was initiated in November 1963. The first submarine will be launched on February 29, 1964 with completion date scheduled for the boats in September 1965, mid 1967 and mid 1968.

During 1963 the conversion of two destroyer escorts was completed. Conversion and modernization included equipping them with variable depth sonar, helicopter landing decks and modification in communications equipment and armament. Work commenced on the conversion and modernization of two further destroyer escorts.

Fleet Maintenance covered the placement of 74 contracts for repair and refit. These varied from emergency repairs to major refits and were valued at approximately $8 million.

Contracts were awarded for ship components and related requirements. A major area of component procurement was represented by the equipment for the conversion and modernization program. Procurement in this field included a ship stabilizer system which represents the first of its kind to be produced in Canada.

Contracts Placed by the Shipbuilding Branch on behalf of the Department of National Defence and Related Expenditures



Deliveries were also taken during the year for variable depth sonar hoisting equipment for the R.C.N. and for a Commonwealth country.

The Naval Shipbuilding Central Procurement Agency, operating under the supervision of the Department of Defence Production, continued its responsibility for bulk purchasing, distribution and accounting associated with the supply of much of the equipment to be worked into vessels under construction.

Production sharing efforts of the Shipbuilding Branch were accelerated in 1963. Corresponding activities directed towards NATO countries were also accelerated. There was an increase in foreign contracts placed with Canadian industry in this field during the year.

Machine Tools and Gauges

Machine tools and allied equipment valued at $632,000 were purchased in 1963, of which 76 per cent was required by the Department of National Defence to meet the requirements of the Armed Forces, and the remainder was purchased through Canadian Commercial Corporation on behalf of other governments.

The care, maintenance and custody of standby Crown owned defence assets involved the issuance of contracts amounting to $110,253. These contracts covered

the cost of maintaining various facilities in standby condition or in storage, as well as the cost of transportation and the repair and overhaul of a number of machine tools.

The inspection and technical personnel of the Machine Tool Branch continued to be consulted by other branches of the Department for plant surveys, time study reports and other technical assistance involving machine tools and general production capabilities.

International Programs Branch

Late in the year an International Programs Branch was established to consolidate activities of Canadian Commercial Corporation with the staff co-ordination work of the United States and Overseas Division of the Department of Defence Production. The new Branch is to provide guidance and control of all the elements of Departmental defence export activities.

General Purchasing

The principal role of the General Purchasing Branch continued to be the procurement of a highly diversified range of goods and services normally available from the open competitive market. In 1963 the Branch issued through headquarters and regional purchasing units, 128,590 contractual documents valued at $173,972,302.

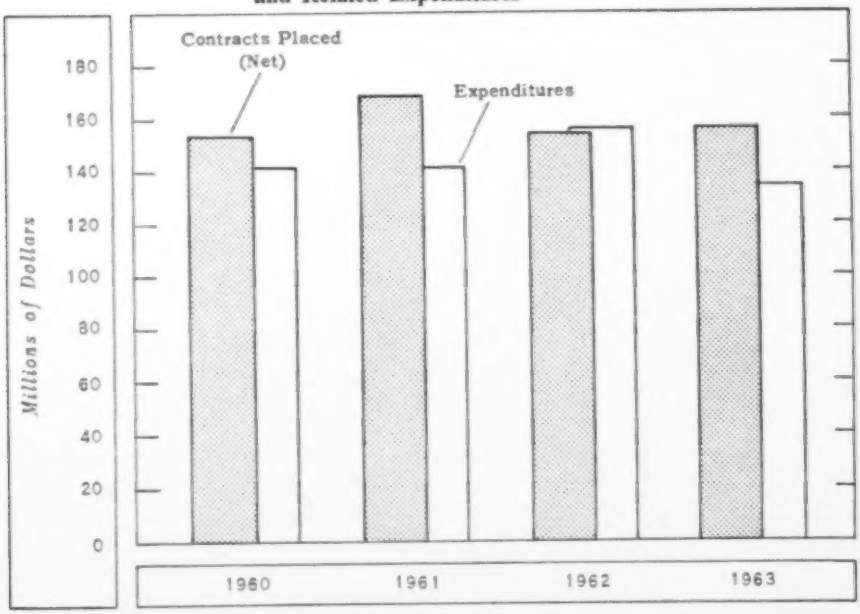
The headquarters segment of the Branch placed major contracts for such diverse items as heating and engine fuels; clothing; footwear; motor vehicles and parts; construction, excavating and road maintenance equipment; electrical equipment; canned and preserved foods; medical and dental equipment; chemicals; paint products; photographic equipment and supplies; furniture and appliances; paper products; containers; packaging supplies; cleaning equipment and supplies; hand tools; hardware, materials handling equipment; lamps; metal bars, sheets and shapes; fire-fighting, rescue and safety equipment; instruments and laboratory equipment; rope, cable, chain; food catering, and aerial surveys.

The Branch participated in the preparation and implementation of standards outlining the minimum acceptable facilities and controls to be met by firms in the drug industry wishing to participate in the supply of Government requirements. Emergency health and welfare supplies and many requirements in support of the national survival program were acquired, including anaesthetics, aluminum litters, hospital beds, blankets, portable X-ray units, portable decontaminating apparatus, parkas and insulated boots, rubber water storage tanks, sirens, and mapping.

External aid procurement was undertaken for India, Burma, Pakistan and a number of African countries. This involved such items as turbines, mining cars, paper, raw nickel, bleached sulphite pulp, fertilizers, herbicides, cranes, tabulating equipment, power plant equipment, motor trucks and steel towers. Under the World Food Program, milk, cheese and salted cod fish were procured for Trinidad, Tobago, and the Island of Bali; flour was acquired for Indonesia under the auspices of UNWRA; stoves and refrigerators were procured for UNICEF.

A number of research projects were undertaken during the year to improve purchasing performance including the extension of contract periods for clothing and textile purchases.

Contracts Placed by the General Purchasing Branch on behalf of the Department of National Defence and Related Expenditures



Fourteen district offices located across Canada purchased, from sources within their areas, goods and services required to support the daily activity of regional defence establishments. These district offices processed 113,074 contractual documents having a total value of $55,941,985. In addition to their normal procurement functions, district purchasing agents participated in exercises, conferences and training sessions associated with the national survival program.

The use of standing offer agreements was greatly expanded to the point where over 5,000 individual arrangements have been made with vendors across the country to supply a wide variety of items, as and when required, for a specified period of time. This form of purchasing has been well received by both the Services and the trade.

Key officers of the Branch were active throughout the year in planning the organization and functions of various Branches identified with the Department of Industry and the proposed central purchasing agency. Late in the year arrangements were completed for the transfer of certain procurement functions and the staffs involved from the General Purchasing Branch to the appropriate new Branches being formed as part of the aforementioned re-organization.

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Procurement by Offices Outside Canada

The Department maintains Purchasing offices in the United States, Britain, France and the Federal Republic of Germany. During 1963, these offices issued Departmental contracts valued at $24.5 million as compared with $15.8 million in 1962.

The main Overseas office, situated in London, England, issued Departmental contracts with British Government agencies such as Admiralty, Ministry of Aviation and the War Office, and with commercial firms in Britain. The largest contracts placed in Britain involved repair and overhaul of aircraft and other equipment for the Royal Canadian Air Force stationed in Europe and spares for tanks and ancillary equipments for the Canadian Army. Aircraft repair and overhaul work was expedited through a small sub-office located at Prestwick, Scotland. Sub-offices in Paris, France, and Koblenz, Federal Republic of Germany, both under the direction of the London office, procured normal requirements for No. 1 Air Division, RCAF, stationed in Europe and, to a lesser degree, other items required by the Canadian Armed Services both Overseas and in Canada. Continental procurement was carried out chiefly through the Governments of the countries where the offices are located. The Overseas offices placed contracts valued at $11.1 million in 1963.

The main United States office, located in Washington, D.C., handled all procurement from the United States Armed Services. Most procurement from United States commercial sources was made by the appropriate head office branch in Ottawa. Contracts issued by the Washington office in 1963 amounted to $13.4 million. The Washington office also maintained regular liaison with a number of other United States agencies, handled Canadian participation in the United States priorities and expediting systems and supplied various types of information to Canadian Government officials; for example, it provided regular information concerning United States mobilization planning for the Emergency Supply Planning Branch of the Department. Another major activity of the Washington office and the Department's personnel in other United States cities was the Production and Development Sharing Program. The Washington office continued to be responsible for a sub-office at Wright-Patterson Air Force Base, Ohio.

Defence Production and Development Sharing

DURING 1963 the Department maintained close liaison both in the United States and Canada with the United States Defense Department, the Armed Services, and industry on a variety of matters of importance to the Production and Development Sharing Program. While statistics of cross-border defence production sharing procurement show a cumulative balance in favour of Canada at the end of the year, the decline compared to 1962 in United States business to Canada and the increase of Canadian business in the United States indicate a trend toward a cross-border balance in the foreseeable future.

Research and development sharing programs sponsored by the Program exhibited a substantial growth rate during the year.

In 1963, $142.0 million worth of United States defence production sharing business was placed with Canadian industry. This is a 44.2 per cent decrease from 1962, due largely to a lower level of United States contracting for Canadian aircraft programs. The total United States defence production sharing business in this country during the five years of the program is $747.9 million.

On the other hand, Canadian defence production sharing business in the United States amounted to $115.2 million in 1963, bringing the total for the five years of the program to $678.2 million.

The Canadian defence production sharing business in the United States exceeded corresponding United States business in Canada by approximately $10.0 million. The cumulative five year balance of production sharing business between Canada and the United States was $69.7 million in favour of Canada at the end of 1963.

The level of defence production sharing activity between Canada and the United States is measured on the basis of definitions and statistical techniques approved by both countries. The classes of contracts included in the defence production sharing category are applied research and development, preproduction, production, licence agreements and technical assistance, installation (other than construction), and repair, overhaul and modification. The production sharing figures do not include contracts for "of-the-shelf" general procurement, construction, basic raw materials, fuels and lubricants, or services (such as transportation, rentals and maintenance of fixed installations). Thus, it is not practical to compare figures measuring the Defence Production Sharing Program, which include subcontracts as well as production sharing prime contracts, with data in other sections of this Report which relate to the prime contracting for which this Department is directly responsible.

Regular monitoring and direction of the Defence Production Sharing Program was provided by a Committee of senior officials of both Governments. The Canadian members included representatives from the Departments of Defence Production, National Defence, Finance and External Affairs. The United States members included representatives from its Departments of Defense, Army, Navy and Air Force and the newly established triservice Defense Supply Agency.

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The Department maintained close liaison with other Canadian Government departments and with appropriate authorities in the United States. Co-ordination with the Department of Trade and Commerce was continued to ensure that liaison opportunities provided by Trade Commissioners and trade shows in the United States were fully exploited. The production branches of the Department continued their close liaison with industry in order to maintain the level of activity in the program and to ensure the appropriate source listing of Canadian firms at various United States military agencies.

New editions of the "Canadian Commodities Index" and the "Guide to Research and Development Capabilities in Canadian Defence Industry" were published and distributed to the appropriate agencies and firms in the United States.

Canadian industrial research and development projects to meet United States defence requirements continue to be supported. Contracts amounting to $8.8 million were issued in 1963 for this type of assistance, with expenditures totalling $13.7 million during the year. Industry and other governments' contributions stimulated by the Development Sharing Program have more than doubled the level of defence industrial research and development activity funded by the Crown. Among the major projects were: airborne surveillance and navigation systems, short take-off and landing (V/STOL) aircraft, gas turbine engines, submarine detection, off-road vehicles, and lightweight missile launchers. Co-ordination of development sharing projects supported by the Department's development fund is provided by an Interdepartmental Committee made up of representatives from the Departments of Defence Production and National Defence.

These defence production sharing efforts resulted in significant increases in United States defence bid solicitation and Canadian industrial responses in the prime contract area. The United States Government enquiries to Canadian industry through Canadian Commercial Corporation rose from 8,290 in 1962 to 12,858 in 1963, and responses by Canadian companies rose from 2,384 to 2,853. Defence production sharing prime contracts placed by the United States Government with the Canadian Commercial Corporation rose from 1,088 to 1,130, having a total value of $84.6 million. In the subcontract area, United States solicitations rose from 3,108 in 1962 to 3,385 in 1963 and responses rose from 2,624 to 2,904. Subcontracts received by Canadian firms increased from 1,769 to 2,075, and were valued at $57.3 million. Other prime contracts received directly from the United States Government by Canadian industry and other institutions totalled $0.2 million.

Such defence production sharing progress enabled the Canadian Government to continue to rely on United States defence industrial sources for the development and production of certain major Canadian defence requirements where this was economically desirable.

In addition to contributing to Canadian industrial defence technology, Canada's defence development and production sharing exports now account for a very substantial part of industrial defence business. The reciprocal advantages to the United States and Canada of the Production and Development Sharing Program during 1963 have been encouraging and the program has become an increasingly important factor in the Canadian defence industrial economy.

NATO Research, Development and Production and Overseas Defence Exports

During 1963 considerable effort was directed toward extension of our program of co-operation in defence production to our European NATO allies, in support of the NATO program of co-operation in defence research, development and production and in the field of Overseas defence export activity, generally.

The Department is responsible for co-ordination of Canadian activities within the NATO program of co-operation in defence research, development and production and has continued to provide the Canadian representation on the NATO Armaments Committee which administers the program.

Canada has submitted for consideration by NATO groups a number of projects in the aircraft, armament and electronics fields. Canadian aircraft and electronics firms have submitted design proposals in response to specific NATO requests. There has been a broadening of the exchange of information on national Research, Development and Production programs (RDP). On the invitation of Canada and the United States, four other NATO countries are participating in a co-operative research and development program on a counter mortar radar being developed by a Canadian firm. A Canadian/Norwegian plan for joint production of our combined requirements of the M72 Light Anti-tank Rocket has been approved as a NATO program. Other NATO countries have been invited to consider participation in the Canadian/British joint development of a short range surveillance system using an unmanned aerial vehicle. In the NATO effort to establish basic agreements which can provide a framework for co-operative RDP projects within NATO, Canada has submitted a proposal on inspection procedures which is now under consideration.

Within the program established by NATO defence ministers to co-ordinate defence requirements and logistics planning amongst the NATO allies, full recognition is given to the necessity for bilateral arrangements within which individual countries collaborate in specific defence development and production programs of mutual interest. In this field of bilateral co-operation Departmental teams have visited Britain, France and Federal Republic of Germany this year to locate and develop opportunities for participation by Canadian industry in development and production programs of these countries. During these visits a number of opportunities for the sale of Canadian defence equipment have been identified and areas of possible joint development have been discussed. These opportunities are being followed up actively by Departmental project officers, representatives of interested Canadian firms and by Canadian Defence Production Attachés stationed in Britain, France and the Federal Republic of Germany.

Materials Supply

The increased demands for Canadian prime metals and semi-fabricated materials did not affect the supply of Canadian defence, atomic energy and production sharing programs. Canada's defence and related programs were again dependent on allocations under the United States Defence Materials System for supply

of certain metallic and non-metallic materials. New and expanded facilities which came into production during the year again further decreased Canada's dependence on outside sources.

During the year the Department completed its sales of tin from the Departmental strategic materials stockpile. All sales were made to Canadian consumers at a rate that did not disrupt the normal market.

This year an increased number of Canadian defence and atomic energy contractors again found it advisable to take full advantage of the priorities, allocations and special assistance, provided to Canadian defence contractors under the United States Defense Production Act and satisfactory results were obtained. Canada's major defence programs were again included in the United States Master Urgency List, thus ensuring an equitable supply of strategic and critical materials to meet production schedules.

Emergency Supply Planning Branch

The Emergency Supply Planning Branch made further progress with plans and preparations to bring the War Supplies Agency into immediate existence in the event of a nuclear war. The Agency would operate at national, regional, zonal and local levels of government. It would assume control of the production, distribution and pricing of supplies for all civilian and military purposes except for certain aspects of the agricultural and fishing industries.

The stand-by staffing of the national and regional components, completed in 1962, was maintained at a satisfactory level in 1963. Substantial progress was made with the organization and staffing of zonal and local components on a stand-by basis.

Established research projects were continued throughout the year and some new ones were started. In the main, these research activities were concerned with surveys of the manufacturing, processing and wholesale levels of industry in respect of stock holdings and production capacities.

Work was virtually completed on an official list of essential materials, and a priority system for essential industries was developed.

In consultation with the Emergency Measures Organization, liaison was maintained with NATO agencies and United States authorities on matters affecting emergency control of supplies.

The Branch conducted two courses, each of five days' duration at the Canadian Civil Defence College. The first of these was attended by stand-by staff of the War Supplies Agency and the second by representatives of industry. The course for industrial executives reflected responsibilities for industrial continuity which were given to the Branch in 1962. Members of the Branch Headquarters staff lectured to over forty courses in emergency planning conducted by other agencies in the Ottawa area during 1963, and similar activities were undertaken by the various regional officers in respect of regional courses.

Advisory and Service Branches

The Administration Branch continued to provide a wide range of services in the field of personnel administration. The responsibilities allocated to the Minister of Industry had a critical impact on all Divisions of the Administration Branch. In addition to Defence Production, these included the Department of Industry, the transfer of certain branches of the Department of Public Printing and Stationery, the transfer of Emergency Measures Organization and the Civil Defence College at Arnprior, integration of Canadian Commercial Corporation and elements of the Department of Trade and Commerce. The expansion of the Department of Defence Production arising from services to the Department of Industry and the implementation of the Glassco recommendations on Purchasing and Supply also had a significant impact on the work of the Branch.

The Personnel Division, which had been staffed to service the Department of Defence Production, was augmented by a group of personnel officers seconded from the Civil Service Commission in order to provide the services of personnel administration required by the enlarged Departmental complex.

The Organization and Methods Division carried out studies in eighteen major areas including: extension of the Secretarial Purchasing Assistant Concept to additional Branches of the Department, re-organization of the Personnel Division, elements of Public Printing and Stationery, Defence Production Procedures and planning of layouts for the MacDonald Building. Plans were drawn up for the creation of a Management Services Branch which would absorb the Organization and Methods Division.

The Training and Development Division conducted courses in Contract Administration, Management Accounting, Industrial Organization and Management Control designed to support the needs of a highly technical staff. In addition many officers of the Department participated in outside training provided through the Civil Service Commission in the universities, industry and associations. Plans were being formulated for the special needs of the Department of Industry.

The Office Services Division was faced with greatly increased demands in regard to allocation of space and structural changes in buildings. The work of the Division was marked by increased demands for telephones, supply of furniture and equipment, planning of moves and structural changes in the temporary buildings.

The Departmental Library expanded its services under the impetus of the requirements of new organization.

The Comptroller's Branch provided the complete accounting service for the Department and for Canadian Commercial Corporation. Services on behalf of the Corporation included the operation of all bank accounts and special financial and accounting administration as required. Complete bookkeeping records, based as far as possible on commercial practice, were kept of the transactions against the Department's Parliamentary appropriations and of all assets and liabilities for which responsibility lies with the Minister. These assets include Crown-owned buildings and equipment in custody of private contractors or in warehouses. Their

accounting involved physical identification in the field and the maintenance of a full inventory record by description, quantity and value. Test physical counts of material carried in stock at various locations were also made during the year.

During 1963 the volume of Departmental accounting continued to increase with respect to F-104G and other Revolving Fund programs as well as those associated with assistance to Canadian industry and development of technological capabilities. Corporation accounting volume likewise was heavier during 1963 due to Production Sharing and other trade expansion efforts.

Time was devoted during the year on an increasing scale to consultations with respect to future arrangements concerning Department of Industry, central purchasing, etc.

The financial position of the Department as at March 31, 1963, is shown in the Balance Sheet and related schedules given in Appendix G, duly certified and reported upon by the Auditor General.

The Economics and Statistics Branch provided the general economic and statistical services required by the Department. In addition to the regular quarterly statistical reports on contracts under the Canada-United States Defence Production Sharing Program and Defence Procurement between Canada and all Overseas countries (excluding the United States), the Branch prepared a statistical report on expenditures against contracts placed under the Canada-United States Defence Production Sharing Program. Approximately 165,000 contracts, related documents and some 80,000 prepunched cards on expenditures were analysed with the aid of data processing equipment. The work of the data processing group was increased in 1963 with continuing requirements for the new Department of Industry as well as for a variety of *ad hoc* projects. Senior officers of the Branch were involved in the re-organization of the statistical and data processing services which would be required for the new organization.

The Financial Adviser's Branch advised on the development and application of financial policies related to defence contracts. This involved the review of major contract proposals to ensure the proper application of Departmental financial policies. The Branch reviewed contract audit reports and assisted in resolving cost and profit problems arising from them. Studies were undertaken during the year on achieving additional incentive type contracts; the acceptability of defence costs and on the application of duties and sales tax to defence contracts. The Branch participated in reviews covering the application of overhead costs to defence work and on the profit position of follow-on contracts resulting from assistance provided under the Defence Production Sharing Program. The Branch provided information on contractor liability for insurance, taxes and duties and advised on related problems arising from contract negotiations. Applications for capital assistance or additional capital cost allowance (accelerated depreciation) were reviewed in the light of Departmental policy. Declarations of surplus items were screened for approval and the use of Crown equipment on non-Canadian defence work was assessed for rental charges. The preparation of the Department's estimates and the appropriations of associated Crown companies were co-ordinated. The Branch administered municipal grants made in lieu of taxes on Crown-owned defence plants operated by private contractors.

The Legal Branch advised the Department on the legal implications of its various activities and the legal steps required to protect the Department in its transactions. In so doing it provided all other Branches and the Deputy Minister's Office with legal services.

The preparation of Formal Contracts was one of the principal functions of the Branch during the year. Its services in this regard commenced in the pre-contractual stage during the negotiation of the larger and more complex production contracts.

A large part of the work on Formal Contracts during the year concerned transactions under which Canada sold defence supplies to, and performed research and development for, the United States Government (under the Canada-United States Defence Production Sharing Program) and sold defence supplies to NATO governments and certain countries outside NATO. In addition the Branch assisted the Department in the negotiation of certain Basic Agreements which were entered into in order to assist other countries in procuring supplies from Canada.

In respect of sales of defence supplies by Canada to other governments, the Branch was called upon to advise on the implications of patents and proprietary rights held by third parties in Canada or in other countries or held by other non-participating governments.

In addition to Formal Contracts covering purchasing and production, Legal Branch prepared miscellaneous Formal Contracts which included the granting by the Crown of financial assistance to contractors in respect of capital assistance, the establishment of qualified sources for the production of component parts and materials and the sustaining of technological capability in Canadian industry by supporting selected defence development programs.

During the year the Branch performed certain legal services for the Department of Industry and handled all legal work for Canadian Commercial Corporation. From time to time the Branch was consulted on legal matters by other Crown agencies which report to the Minister.

The Secretary's Branch provided the Departments with such essential services as communications, printing and stationery, central registry, administrative and purchasing services. In co-operation with the Emergency Supply Planning Branch, the Secretary conducted a survey in the procurement branches to explore the problems likely to be encountered in accelerated buying during a period of national emergency.

The Branch, in conjunction with various procurement branches and the Department of National Defence, revised certain follow-up procedures on defence contracts and participated in standardizing and simplifying invoicing instructions. In co-operation with the Departmental units concerned, the Branch prepared, edited and distributed a second edition of the Canadian Commodities Index and has begun work on a new Index aimed at the Overseas markets.

The Branch took an active part in co-ordinating and introducing new methods throughout the Department as a result of the re-organization of the Canadian Commercial Corporation.

The Branch, in association with other Departmental groups, planned the re-organization of those service branches of the Department which will be at the disposal of both the Departments of Industry and Defence Production.

Appendix A

MINISTER
EXECUTIVE ASSISTANT
DEPUTY MINISTER
EXECUTIVE ASSISTANT
ASSISTANT DEPUTY MINISTER
ASSISTANT DEPUTY MINISTER
ASSISTANT DEPUTY MINISTER
MANAGEMENT CONTROL GROUP
GENERAL PURCHASING BRANCH
PROCUREMENT, PURCHASING & STORES BRANCH
AIRCRAFT BRANCH
ELECTRONICS BRANCH
INTERNATIONAL PROGRAMS BRANCH
SHIPBUILDING BRANCH
ORDNANCE BRANCH
CANADIAN COMMERCIAL CORPORATION
MACHINE TOOL BRANCH
SECRETARY'S BRANCH
ADMINISTRATION BRANCH
LEGAL BRANCH
EMERGENCY SUPPLY PLANNING BRANCH
COMPTROLLER'S BRANCH
FINANCIAL ADVISER'S BRANCH
ECONOMICS & STATISTICS BRANCH
INDUSTRIAL SECURITY BRANCH
MECHANICAL TRANSPORT BRANCH
CLOTHING AND TEXTILES BRANCH
WOOD PRODUCTS BRANCH
FOOD PRODUCTS BRANCH
CHEMICALS BRANCH
MATERIALS BRANCH
CANADIAN GOVERNMENT PRINTING BUREAU
CANADIAN ARSENALS LIMITED

Appendix B

Senior Personnel of the Department

as at December 31, 1963

Minister

The Honourable C. M. Drury, P.C., C.B.E., D.S.O., Q.C., M.P.

Executive Assistant to the Minister	F. M. Wanklyn

Deputy Minister

G. W. Hunter

Assistant Deputy Minister	W. H. Huck
Assistant Deputy Minister	D. B. Mundy
Assistant Deputy Minister	B. G. Barrow
Executive Assistant to the Deputy Minister	W. J. Mulock

Production Branches

Director, Aircraft Branch	D. L. Thompson
Deputy Director, Aircraft Branch	A. D. Belyea
Director, Armament Branch	C. L. Muir
Director, Electronics Branch	J. S. Glassford
Deputy Director, Electronics Branch	S. I. Comach
Deputy Director, Electronics Branch	T. C. Jones
Director, International Programs Branch	R. M. Trites
Director, Machine Tool Branch	R. Mosher
Director, Mechanical Transport Branch	N. B. MacDonald
Director, Shipbuilding Branch	J. C. Rutledge
Deputy Director, Shipbuilding Branch	J. J. McKennirey

General Purchasing Branch

Director	D. M. Erskine
Deputy Director	R. C. D. Laughton

Procurement, Purchasing and Stores Branch

Director	G. P. O'Keefe

Emergency Supply Planning Branch

Director	J. C. Morrison

Advisory and Service Branches

Financial Adviser	R. M. Keith
Deputy Financial Adviser	N. R. MacLean
Director, Contracts Authorization Division	R. E. Sayers
Comptroller	G. F. Wevill
Deputy Comptroller	T. E. Brown
Departmental Secretary	J. J. Tevlin
Director, Administration Branch	H. R. Kotlarsky
Director, Industrial Security Branch	L. C. Cragg
Director, Legal Branch	F. F. Waddell
Deputy Director, Legal Branch	C. S. Stevenson
Director, Management Control Group	A. R. Bailey
A Director, Economics & Statistics Branch	K. L. J. Boite
Director, London (England) Office	P. Solly-Flood
Director, Washington Office	D. H. Gilchrist

Canadian Government Printing Bureau

Acting Director	C. B. Watt

Appendix C

Distribution of Departmental Staff

as at 31 December 63

Branch	31 Dec. 63
Deputy Minister's	85
Administration	108
Aircraft	163
Armament	65
Comptroller's	88
Economics & Statistics	31
Electronics	171
Emergency Supply Planning	70
Financial Adviser's	48
General Purchasing	342
Industrial Security	25
International Programs	51
Legal	9
Machine Tool	25
Management Control	10
Secretary's	200
Shipbuilding	120
TOTALS	1611

Appendix D

Crown Companies Associated with the Department of Defence Production

as at December 31, 1963

Canadian Arsenals Limited

President and General Manager	J. R. Brisson
Vice-President	G. W. Hunter

Canadian Commercial Corporation

President	M. H. Lamoureux
Secretary and Legal Adviser	F. F. Waddell
Comptroller	G. F. Wevill

Crown Assets Disposal Corporation

President and General Manager	Louis Richard
Vice-President	G. W. Hunter
Assistant General Manager	I. M. Mackinnon
Secretary and Legal Counsel	M. J. Ellsworth

Defence Construction (1951) Limited

President and General Manager	A. G. Bland
Secretary and Legal Counsel	J. D. Jennison
Treasurer	N. Tokaryk

Polymer Corporation Limited

Chairman of the Board	E. J. Brunning
President and Managing Director	E. R. Rowzee
Vice-President, Operations	L. D. Dougan
Vice-President, Finance	S. Wilk
Vice-President, Marketing	R. E. Hatch
Vice-President, Research and Development	Dr. E. J. Buckler
Secretary and Chief Legal Officer	W. J. Dyke

Appendix E

District Purchasing Offices and Offices Located Outside Canada

Addresses as at December 31, 1963

District Purchasing Offices

St. John's, Nfld.	Room 401, Main Post Office Building, Water Street. (P.O. Box 487).
Halifax, N.S.	Room 527, Federal Building, Bedford Row. (P.O. Box 1655).
Saint John, N.B.	Room 408, Sadim Building, Canterbury & Duke Streets.
Quebec, P.Q.	Gare Maritime Champlain, Chemin des Foulons.
Montreal, P.Q.	685 Cathcart Street.
Ottawa, Ont.	953 Somerset Street West.
Toronto, Ont.	Room 1214, Mackenzie Building, 36 Adelaide Street East.
London, Ont.	388 Dundas Street. (P.O. Box 2275—Terminal "A").
Winnipeg, Man.	Room 326 E, 344 Edmonton Street.
Regina, Sask.	302, New Post Office Building, Cornwall & S. Railway Streets.
Calgary, Alta.	Room 725, Public Building, 8th Avenue & 1st Street East.
Edmonton, Alta.	Room 309, Federal Building, 107th Street & 99th Ave.
Vancouver, B.C.	Room 407, Federal Building, 325 Granville Street.
Victoria, B.C.	Room 318, Canada Customs House, 816 Government Street.

Offices Located Outside Canada

Washington, U.S.A.	Canadian Department of Defence Production, 2450 Massachusetts Ave., (P.O. Box 4897, Cleveland Park Station), WASHINGTON 8, D.C., U.S.A.
Sub-Office	MCL DDP Wright-Patterson Air Force Base, OHIO, U.S.A.

PRODUCTION SHARING LIAISON OFFICES

Counsel and Assistant Trade Commissioner,
Department of Trade and Commerce,
c/o Canadian Consulate General,
680 Fifth Avenue,
NEW YORK 19, N.Y., U.S.A.

ROP/DDP
Rome Air Materiel Area,
Griffiss Air Force Base,
ROME, N.Y., U.S.A.

Canadian Department of Defence Production,
L.G. Hanscom Field,
BEDFORD, Mass., U.S.A.

Canadian Department of Defence Production,
c/o U.S. Army Electronics Materiel Agency-
SELMA-A13,
225 South 18th Street,
PHILADELPHIA 3, Pa., U.S.A.

Canadian Department of Defence Production,
c/o U.S. Army Ordnance District,
1580 East Grand Blvd.,
DETROIT 11, Mich., U.S.A.

Counsel and Trade Commissioner,
Canadian Consulate General,
510 West Sixth Street,
LOS ANGELES 14, Calif., U.S.A.,
for D.D.P.

Canadian Consulate General,
310 South Michigan Avenue,
Suite 2000,
CHICAGO 4, Ill., U.S.A.

Counsel and Assistant Trade Commissioner,
Department of Trade and Commerce,
c/o Canadian Consulate General,
Suite 1710,
225 Baronne Street,
NEW ORLEANS 12, La., U.S.A.

LONDON, ENGLAND

Canadian Department of Defence Production,
1 Grosvenor Square,
LONDON W. 1, England.

Sub-Offices	Canadian Department of Defence Production, c/o Canadian Embassy, 1 rue Chanez, PARIS 16e, France.
	Canadian Department of Defence Production, 54 KOBLENZ-PFAFFENDORF, Emserstrasse 21, Germany.
	Canadian Department of Defence Production, c/o Scottish Aviation Limited, PRESTWICK AIRPORT, Ayrshire, Scotland.
OFFICE OF DDP REPRESENTATIVE TO THE NORTH ATLANTIC COUNCIL	OTAN-NATO, Place du Maréchal de Lattre de Tassigny, PARIS 16e, France.
DEFENCE PRODUCTION ATTACHÉ	c/o Canadian Embassy, 35 avenue Montaigne, PARIS 8e, France.
DEFENCE PRODUCTION ATTACHÉ-CANADIAN REPRESENTATIVE TO THE EUROPEAN ORGANIZATION FOR DIRECTION AND CONTROL F-104G	c/o Canadian Embassy, Zitelmannstrasse 22, BONN, Germany.

Appendix F

Statistics of Defence Contracts and Expenditures

The statistical tables in this Appendix contain information for calendar years 1962 and 1963 on contracting and related spending in connection with the Canadian defence procurement and construction program and with foreign government prime defence contracts placed through Canadian Government agencies. These statistics measure the value of contracts as they are issued to contractors and suppliers and the value of payments as they are made to them.

The net value of contracts issued, as shown in these tables, includes the value of amendments which increased or decreased commitments under existing contracts, as well as the value of new contracts. In some cases, therefore, credit net values are shown because decreasing amendments to contracts placed in earlier years have exceeded the value of new contracts and increasing amendments issued.

Some of the figures for 1962 have been revised since they were published in the preceding issue of the Annual Report of the Department. Also, the totals shown do not always equal the sum of the component figures because of rounding the figures to the nearest thousand dollars.

The tables are grouped in pairs, with the first "a" containing data on the net value of contracts issued and the second "b" containing the value of expenditures against these contracts and against similar contracts placed in earlier years.

Tables 1-a and 1-b contain summary statistics relating to all contracts issued by the Department of Defence Production and its associated Crown companies, Defence Construction (1951) Limited and Canadian Commercial Corporation, with the exception of those involving payments out of the Defence Production Revolving Fund. Both contract and expenditure data are broken down by the various sources that requisition and pay for the goods or services involved.

Tables 2-a and 2-b contain statistics related to contracting by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence. Payments against these contracts are made from funds appropriated by Parliament for the Department of National Defence. The figures in these tables are broken down by defence programs (as defined below) and the country in which the prime contractor is located (based on the address to which the contract is sent). The data contained in Tables 2-a and 2-b are similar to those contained in Tables 1-a and 1-b to Tables 4-a and 4-b in previous Annual Reports of the Department.

Tables 3-a and 3-b provide data relating to prime defence contracts placed in Canada by foreign governments through Canadian Government agencies, such as Canadian Commercial Corporation. The Department of Defence Production issues most of the contracts for Canadian Commercial Corporation.

Tables 4-a and 4-b relate to certain activities in support of Canadian defence industry that are financed from Defence Production Parliamentary appropriations.

Definitions of the Defence Programs

The general concept involved in this defence program classification is that of relating all procurement, as far as possible, to a readily identifiable military end-item, such as an aircraft, a ship, an electronic device, a gun, a type of ammunition, an item of clothing, etc. Thus a particular program includes, in addition to the end-item, those components or parts that become an integral part of the end-item, as well as associated services such as design and development, installation, maintenance and repair and overhaul.

AIRCRAFT: This program includes complete aircraft and items to be physically incorporated in complete aircraft, such as airframes, engines, propellers, navigational and flight instruments, electrical systems and their components. The repair and overhaul of aircraft is also included. Excluded are accessories such as armament and communication equipment, photographic equipment, training devices and ground support equipment.

ARMAMENT: This program includes weapons such as small arms, guns, howitzers and their components; light, medium and heavy ammunition of all types, including mines, depth charges and torpedoes; rockets and missiles and their launchers; and explosives and certain defence chemicals. Electronic fire controls are not included.

ELECTRONICS: Electronics and communication equipment of all types are in this program, including telephone, telegraph, radio and radar equipment. Underwater sound equipment, fire control equipment and flight and tactics simulators are also included. Development, maintenance, management and transportation services associated with the procurement of electronic and communication equipment are in this program. (This program was formerly identified as the Electronics and Communication Equipment program.)

SHIPS: This program includes destroyer escorts, frigats, minesweepers, aircraft carriers, and other floating equipment, and ship components such as hulls and superstructures, propulsion machinery, boilers, condensers, heating and electrical systems. Reconversion, refit and repair of ships are also included. Armament and electronic gear are excluded.

TANK-AUTOMOTIVE: Included in this program are tanks and vehicles of both armoured and non-armoured types. Cars, trucks and buses and their components, such as tires and tubes, are included. Excluded are armament and electronic equipment.

FUES AND LUBRICANTS: This program includes petroleum, gas, coal and coke, and their products, principally aviation turbine fuel and gasoline, motor vehicle gasoline, and heating fuels.

CLOTHING AND EQUIPAGE: All items of personal clothing, including footwear, and of personal equipment, such as mess kits and steel helmets, are in this program.

CONSTRUCTION: This program includes all construction contracts for building structures, runways, etc., as well as for consultant services, repairs and maintenance. Most of these contracts are placed by Defence Construction (1951) Limited.

Appendix

Table 1-a.—Net Value of All Contracts Issued

Sources for which Contracts Issued	1962	1963
	$000	$000
Department of National Defence	536,666	522,277
Department of Defence Production:		
Votes in Support of Defence Industry	9,387	11,330
Foreign Governments:		
United States	202,887	96,868
Britain	1,147	1,372
Federal Republic of Germany	14,333	2,693
Other Governments	7,253	34,239
Canadian External Aid	24,981	11,646
Other	985	1,543
Total	797,639	681,968

Table 1-b.—Expenditures Against All Contracts Issued

Sources Paying the Contracts	1962	1963
	$000	$000
Department of National Defence	606,374	523,551
Department of Defence Production:		
Votes in Support of Defence Industry	8,971	16,776
Foreign Governments:		
United States	127,747	152,835
Britain	1,213	1,844
Federal Republic of Germany	4,361	6,297
Other Governments	2,527	28,312
Canadian External Aid	9,214	21,079
Other	4,224	3,325
Total	764,631	754,019

Table 2-a.—Net Value of Canadian Government Defence Contracts

1963

Program	Canada	United States	Britain	France	Other Countries	Total
	$000	$000	$000	$000	$000	$000
Aircraft	140,130	26,424	912	10	68	167,545
Armament	11,328	2,490	330	40 cr	13	14,119
Electronics	94,315	11,254	1,677	284	312	107,843
Ships	40,346	576	286	[a]	—	41,209
Tank-automotive	13,014	49	4,233	91	287	17,674
Fuels and lubricants	46,034	58	119	63	383	46,658
Clothing and equipage	10,660	46	40	6	2	10,754
Construction	31,247	—	—	1,558	424	33,229
Other	79,023	1,223	508	1,399	1,091	83,246
Total	466,097	42,121	8,107	3,107	2,581	522,277

1962

Program	Canada	United States	Britain	France	Other Countries	Total
	$000	$000	$000	$000	$000	$000
Aircraft	186,734	16,447	1,855	3	212	205,252
Armament	14,517	3,120	250	7,576	4	25,466
Electronics	73,033	8,500	671	382	200	82,785
Ships	27,351	253	185	—	51	27,841
Tank-automotive	7,182	804	671	45	221	8,924
Fuels and lubricants	38,057	11	163	85	289	38,605
Clothing and equipage	12,712	8	80	5	8	12,814
Construction	38,125	—	—	1,118	200	39,443
Other	88,811	2,973	1,297	1,351	1,104	95,536
Total	486,523	32,117	5,171	10,564	2,290	536,666

[a] Less than $500.

Table 2-b.—Expenditures Against Canadian Government Defence Contracts

1963

Program	Canada	United States	Britain	France	Other Countries	Total
	$000	$000	$000	$000	$000	$000
Aircraft	158,569	13,070	1,823	10	72	173,544
Armament	14,905	2,498	2,171	4,552	13	24,139
Electronics	91,201	10,780	1,035	284	263	103,564
Ships	51,826	496	378	[a]	53	52,753
Tank-automotive	9,550	22	851	91	287	10,802
Fuels and lubricants	28,593	12	97	63	386	29,151
Clothing and equipage	11,980	3	65	6	2	12,056
Construction	30,880	—	—	1,319	311	32,510
Other	79,535	2,164	862	1,400	1,072	85,033
Total	477,039	29,046	7,283	7,725	2,458	523,551

1962

Program	Canada	United States	Britain	France	Other Countries	Total
	$000	$000	$000	$000	$000	$000
Aircraft	171,536	17,702	1,577	3	82	190,900
Armament	13,163	1,779	990	12	4	15,948
Electronics	97,127	14,327	1,501	382	200	113,537
Ships	52,347	741	414	—	—	53,503
Tank-automotive	8,133	826	563	45	250	9,818
Fuels and lubricants	37,261	8	73	85	284	37,711
Clothing and equipage	10,615	65	74	5	4	10,763
Construction	79,302	—	—	1,161	339	80,802
Other	87,782	2,207	959	1,351	1,093	93,393
Total	557,266	37,655	6,152	3,044	2,256	606,374

[a] Less than $500

Table 3-a.—Net Value of Foreign Government Prime Contracts Placed in Canada

1963

Program	United States	Britain	West Germany	Other Countries	Total
	$000	$000	$000	$000	$000
Aircraft	46,706	—	1,394	29,089	77,189
Armament	5,033	766	3	582	6,384
Electronics	33,614	129	1,296	4,056	39,095
Fuels and lubricants	3,327	—	—	—	3,327
Construction	1,151	—	—	—	1,151
Other	7,037	476	[a]	512	8,026
Total	96,868	1,371	2,693	34,239	135,172

1962

Program	United States	Britain	West Germany	Other Countries	Total
	$000	$000	$000	$000	$000
Aircraft	149,708	[a]	1	102	149,811
Armament	6,916	446	10	357	7,730
Electronics	37,581	232	14,280	6,438	58,531
Fuels and lubricants	2,234	—	—	—	2,234
Construction	3,435	—	—	—	3,435
Other	3,012	468	42	356	3,879
Total	202,887	1,147	14,333	7,253	225,620

[a] Less than $500.

Table 3-b.—Expenditures Against Foreign Government Prime Contracts Placed in Canada

1963

Program	United States	Britain	West Germany	Other Countries	Total
	$000	$000	$000	$000	$000
Aircraft	95,157	[a]	228	21,905	117,290
Armament	5,572	564	3	593	6,732
Electronics	42,971	754	6,046	5,392	55,163
Fuels and lubricants	3,702	—	—	—	3,702
Construction	2,050	—	—	—	2,050
Other	3,384	525	20	423	4,352
Total	152,835	1,844	6,297	28,312	189,289

1962

Program	United States	Britain	West Germany	Other Countries	Total
	$000	$000	$000	$000	$000
Aircraft	71,817	16	1	200	72,035
Armament	5,820	265	10	368	6,462
Electronics	33,677	471	4,328	1,632	40,108
Fuels and lubricants	4,626	—	—	—	4,626
Construction	9,275	—	—	—	9,275
Other	2,531	461	22	328	3,342
Total	127,747	1,213	4,361	2,527	135,849

[a] Less than $500.

Table 4-a.—Net Value of Contracts to Assist Canadian Defence Industry

Category of Assistance	1962	1963
	$000	$000
Care, maintenance and custody of Crown owned standby defence assets	293	164
Capital assistance	92	150
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	245	1,753
Establishment of qualified sources for the production of component parts and materials	291	474
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing programme	8,466	8,789
Total	9,387	11,330

Table 4-b.—Expenditures Against Contracts to assist Canadian Defence Industry

Category of Assistance	1962	1963
	$000	$000
Care, maintenance and custody of Crown owned standby defence assets	1,056	583
Capital assistance	153	119
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	703	1,890
Establishment of qualified source for the production of component parts and materials	279	485
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing programme	6,781	13,699
Total	8,971	16,776

Appendix G

Report to the Minister on the Audit of the Accounts of the Department

OTTAWA, November 22, 1963.

The Honourable C. M. Drury,
Minister of Industry,
Ottawa.

SIR,

I have examined the accounts and financial statements of the Department of Defence Production for the year ended March 31, 1963 and I now report that, in my opinion:

(a) proper books of account have been kept by the Department;

(b) the financial statements of the Department

(i) were prepared on a basis consistent with that of the preceding year and are in agreement with the books of account,

(ii) in the case of the balance sheet, give a true and fair view of the state of the Department's affairs as at the end of the financial year, and

(iii) in the cases of the statement of expenditure, statement of revenue and the summary of transactions in surplus arising from trading operations, give a true and fair view of the operations of the Department for the financial year; and

(c) the transactions of the Department that have come under my notice have been within the powers of the Department under the Defence Production Act and any other Act applicable to the Department.

In accordance with established governmental practice, the Crown-owned capital assets for which the Department is accountable are carried on the balance sheet at cost, without showing any deduction with respect to depreciation.

Yours faithfully,

A. M. Henderson,
Auditor General.

Balance Sheet as at March 31, 1963

(with comparative figures as at March 31, 1962)

General Account

Assets

		1963	*1962*
Cash		$ 586,027	$ 409,362
Accounts receivable—			
Purchasers of Crown plants and equipment	$ 8,302,746		10,621,597
Other	59,478		13,913
		8,362,224	
Advances—			
Crown agencies	17,000,000		17,500,000
Other	13,607		13,784
		17,013,607	
Investments, at cost—			
Polymer Corporation Limited, capital stock	30,000,000		30,000,000
Township of Toronto, 3% debentures 1963-71	242,015		265,144
Defence Construction (1951) Limited, capital stock	30		30
Canadian Arsenals Limited, capital stock	30		28
		30,242,075	
Crown-owned lands, buildings, machinery and equipment, at cost, including rehabilitation and installation costs			
With contractors	52,327,273		54,864,565
In warehouse	5,296,368		5,219,246
		57,623,641	

Liabilities and Government Equity

	1963	*1962*
Accounts payable	$ 919,260	$ 343,035
Sundry liabilities	578,270	401,606
Equity of Government of Canada, Exhibit II	221,542,131	229,261,456

Crown-owned plants, at cost						
Canadian Arsenals Limited	99,611,024		101,363,455			
Other	9,601,063		9,734,973			
		109,212,087				
		$223,039,661	$230,006,097		$223,039,661	$230,006,097

In addition to the assets listed above, the Department has recorded in its books, expenditure in the amount of $257,246,571 for production tooling, dies and jigs, title to which is vested in the Crown.

Revolving Fund

Government of Canada bonds	$ 475,000	$	Contractors' security deposits		$ 475,000	$
Accounts receivable	9,276,584	746,607	Accounts payable		824,618	1,525,906
Progress payments and advances to suppliers	45,067,246	14,511,648	Progress payments from customers		24,083,776	730,485
Working capital advances	2,250,000	4,750,000	Equity of Government of Canada— Revolving Fund, as provided by Defence Production Act, Section 16 (authorized $100,000,000), net expenditure	$39,068,165		27,296,568
Inventories of strategic materials, etc., at cost	8,981,563	13,563,559	Inventory taken over by Department at inception	716,840		3,728,584
			Surplus arising from trading operations, Exhibit V	881,994		290,271
					40,666,999	
	$66,050,393	$33,571,814			$66,050,393	$33,571,814

Approved on behalf of the Department

G. W. HUNTER, *Deputy Minister.*

G. F. WEVILL, *Comptroller.*

I have examined the above Balance Sheet and the related Statements and have reported thereon under date of November 22, 1963 to the Minister of Industry.

A. M. HENDERSON, *Auditor General.*

Exhibit II

Summary of transactions in Equity of Government of Canada Account

for the year ended March 31, 1963

Balance at April 1, 1962	$229,261,456	
Additions:		
Transfer of assets from other departments and Crown agencies	2,509,001	
Assets acquired from appropriations	231,150	
Sundry	343	
		$232,001,950
Reductions:		
Transfer of surplus assets to Crown Assets Disposal Corporation	4,945,808	
Receipts from sales, etc., Exhibit IV	2,351,331	
Decrease in fixed assets in custody of Canadian Arsenals Limited	1,752,431	
Increase in accounts payable	576,225	
Decrease in working capital advance to the Canadian Commercial Corporation	500,000	
Transfer of assets to other departments and Crown agencies	290,610	
Assets written off due to completion of contracts, dismantling, etc.	31,346	
Compromise settlement of account receivable	10,655	
Sundry	1,413	
		10,459,819
Balance at March 31, 1963		$221,542,131

Exhibit III

Statement of Expenditure for the year ended March 31, 1963

(with comparative figures for the year ended March 31, 1962)

		1963	*1962*
Vote 1, Departmental administration			
Salaries	$9,145,053		$ 8,297,919
Living allowances	209,169		157,677
Travelling expenses	288,831		306,608
Office stationery, supplies and equipment	243,244		266,350
Telephones and telegrams	176,191		205,141
Professional and special services	113,164		110,981
Postage	57,392		62,464
Freight, express and cartage	12,122		13,170
Rental of office accommodation	3,343		2,277
Publication of departmental reports and other material	1,186		1,531
Sundries	17,011		70,919
		$10,266,706	9,495,037
Vote 5, Care, maintenance and custody of standby defence plants, buildings, machine tools and production tooling		846,603	877,016
Vote 10, Capital assistance			
Capital account			
Construction, improvements and acquisition of land	.....		627,227
Equipment	113,341		131,059
Accountable advances to contractors	63,597		.....
Establishment of production capacity	52,720		18,067
Income account			
Establishment of production capacity	1,335,853		933,644
		1,565,511	1,709,997
Vote 15, Grants to municipalities in lieu of taxes		130,012	119,474
Vote 20, Establishment of qualified sources for production of component parts and materials			
Capital account	1,667		9,700
Income account	243,539		364,824
		245,206	374,524

Vote 25, Sustainment of technological capability in Canadian industry		$ 8,537,898	$ 4,672,046
Vote 30, Defence Construction (1951) Limited Administration		3,221,504	3,459,615
Canadian Arsenals Limited—			
Vote 35, Administration and operation		4,200,573	3,169,725
Vote 40, Construction and improvements	7,464		28,455
Vote 40, Equipment	375,296		262,092
		382,760	
Statutory—Minister of Defence Production			
Salary	15,000		15,000
Motor car allowance	2,000		2,000
		17,000	
Refund of prior year's rental revenue		.....	9,153
Total expenditure		$29,413,773	$24,194,134

Exhibit IV

Statement of Revenue for the year ended March 31, 1963

(with comparative figures for the year ended March 31, 1962)

	1963	*1962*
Income Account—		
Sales of surplus Crown assets	$ 8,543,519	$ 9,627,987
Return on investments	3,652,107	3,924,658
Rentals of buildings and equipment	182,575	278,778
Refunds of previous years' expenditure	108,652	6,074
Miscellaneous	4,649	5,357
	12,491,502	13,842,854
Capital Account—		
Sales of plant and equipment by the Department	2,318,771	1,472,438
Repayment of debentures	23,129	22,455
Recoveries of advances and accounts receivable	9,431	6,266
	2,351,331	1,501,159
	$14,842,833	$15,344,013

Exhibit V

Summary of transactions in surplus arising from trading operations (Revolving Fund) for the year ended March 31, 1963

(with comparative figures for the year ended March 31, 1962)

		1963	1962
Balance at April 1		$290,271	$ 184,975
Additions:			
Sales, less cost of materials sold—			
Aircraft and components, sales	$7,710,679		
Aircraft and components, cost of sales	7,710,679		
Strategic materials, sales	4,873,877		2,319,515
Strategic materials, cost of sales	4,470,458		2,078,763
		403,419	240,752
Research and development, sales	1,943,230		290,714
Research and development, cost of sales	1,943,230		290,714
Sonobuoys, sales	748,664		
Sonobuoys, cost of sales	703,125		
Surplus transferred to accounts payable, reserve for price adjustment	45,539		
Shipbuilding components, sales	63,944		79,898
Shipbuilding components, cost of sales	63,944		79,898
Cloth, sales			5,162
Cloth, cost of sales			3,361
			1,801
Munitions and components, sales	(112,769)		903,344
Munitions and components, cost of sales	(112,769)		903,344
Interest received on sales of aircraft, net		194,423	
		888,113	427,528

Reductions:			
Warehousing and other expenses—cloth and strategic materials	7,874		137,257
Less: proceeds of sale of warehousing equipment	1,755		
		6,119	137,257
Balance at March 31		$881,994	$ 290,271